

Figure 1

AUS000111US1

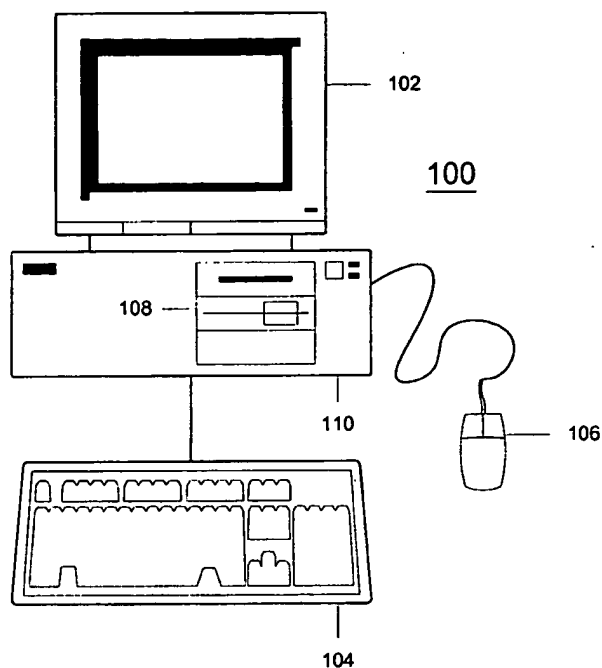
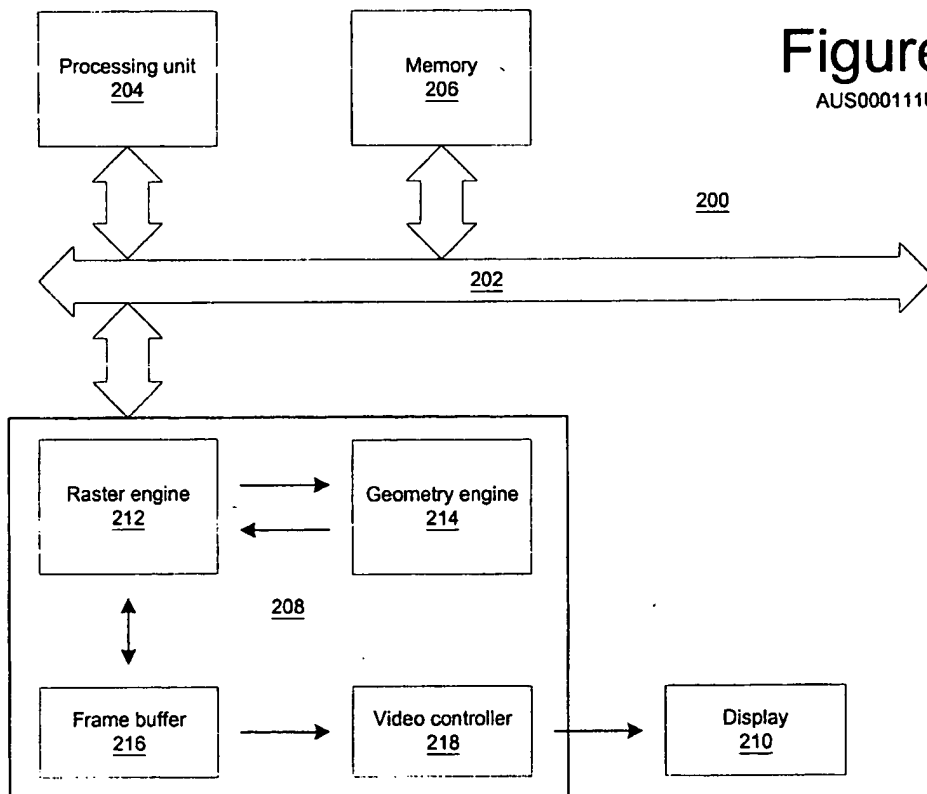
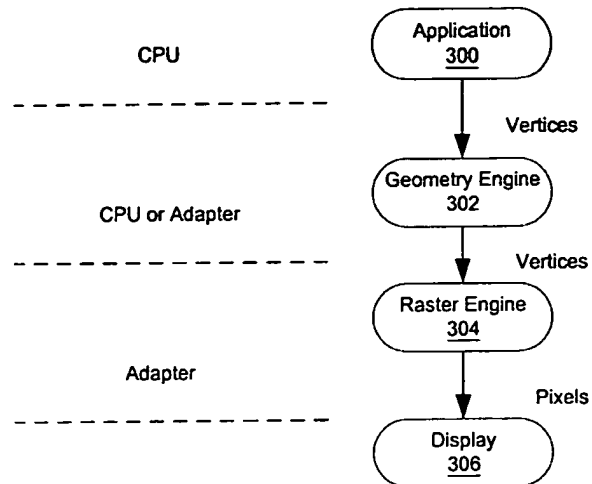


Figure 2

AUS000111US1



AUS000111US1



AUS000111US1

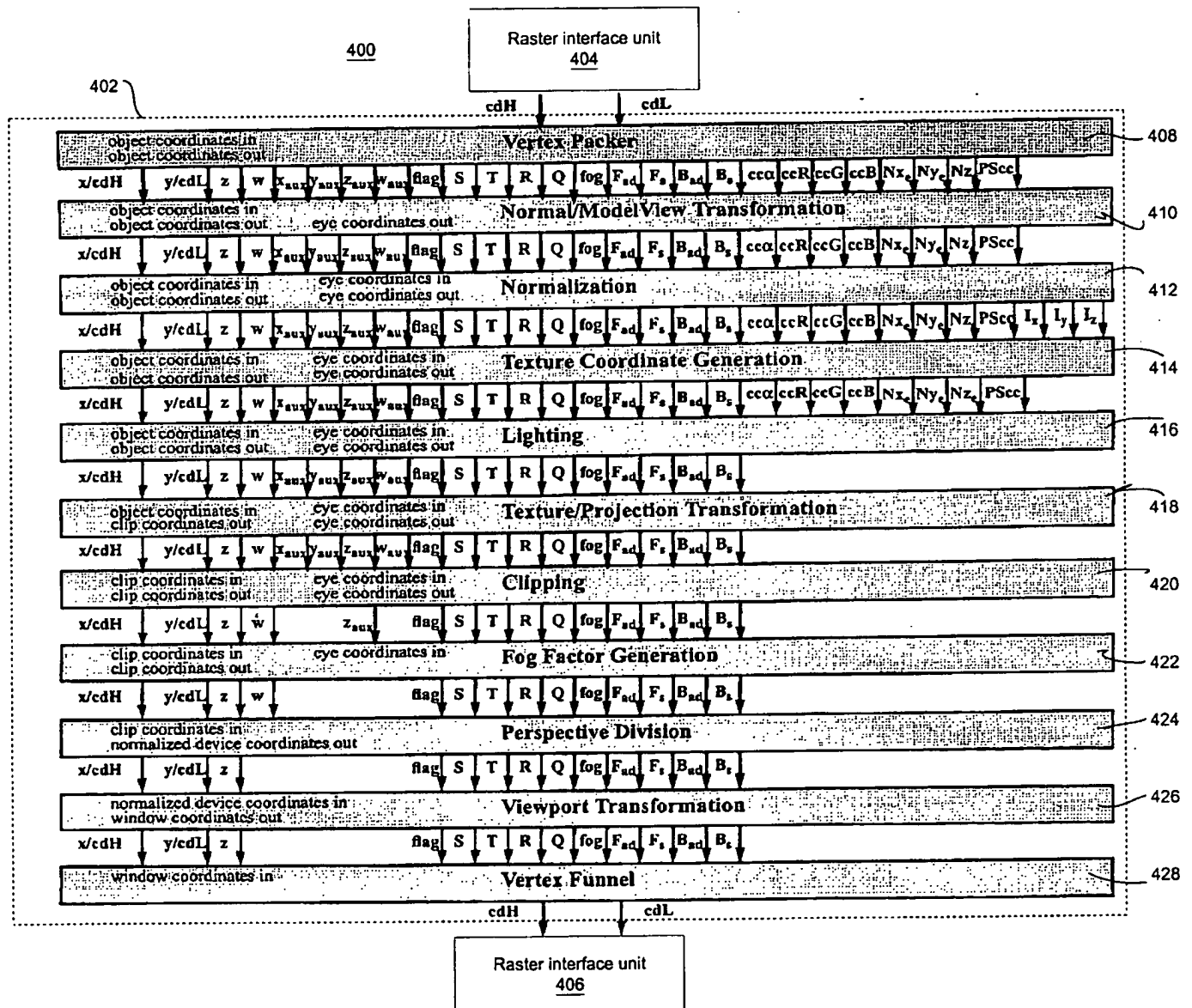


Figure 5

AUS000111US1

Vertex Fragment Descriptions

Fragment <u>502</u>	as used in Geometry <u>504</u>	as used in Raster <u>506</u>
x, y, z, w	primary coordinate ¹	screen coordinate
xAux, yAux, zAux, wAux	eye coordinate ²	n/a
s, t, r, q	texture coordinate	texture coordinate
fog	fog factor	fog factor
f _{ad} , f _s	n/a	front ambient/diffuse color, front specular color
b _{ad} , b _s	n/a	back ambient/diffuse color, back specular color
cc _a , cc _r , cc _g , cc _b	current color (alpha, red, green, blue)	n/a
n _x , n _y , n _z	normal vector	n/a
PSc	secondary current color (packed alpha, red, green, blue)	n/a
i _x , i _y , i _z	normalized eye coordinate ³	n/a

1. Based on the location of the vertex within the geometry pipeline, the primary coordinate is either an object, clip, normalized device, or screen coordinate. See Figure 2.
2. Several stages in the geometry pipeline require both primary and auxiliary (eye) coordinates.
3. The normalized eye coordinate is generated by the normalization unit and is only useful to the texture coordinate generation unit.

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Figure 6

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Fragments Affected Per Stage

600

Stage 602	Fragments Affected 604	Associated Command 606
Normal/ModelView Transformation	$x_{Aux}, y_{Aux}, z_{Aux}, w_{Aux}$ n_x, n_y, n_z	ENABLE_NORMALXF ENABLE_MDLVW XF
Normalization	n_x, n_y, n_z i_x, i_y, i_z	ENABLE_NORMALIZEN ENABLE_TCGSPHERE
Texture Coordinate Generation	s, t, r, q	ENABLE_TCG
Lighting	f_{ad}, f_s, b_{ad}, b_s	
Texture/Projection Transformation	x, y, z, w s, t, r, q	ENABLE_TEXTUREXF ENABLE_PROJECTXF
Clipping	all	ENABLE_CLIPPING
Fog Factor Generation	fog	ENALBE_FOG
Perspective Division	x, y, z s, t, r, q	ENABLE_PERSDIV ENABLE_TEXPERSDIV
Viewport Transformation	x, y, z	ENABLE_VIEWPORTXF

Figure 7

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Fragments Required Per Stage

700

Stage 702	Fragments Required 704
Normal/ModelView Transformation	x, y, z, w, n _x , n _y , n _z
Normalization	xAux, yAux, zAux, wAux, n _x , n _y , n _z
Texture Coordinate Generation	x, y, z, w, xAux, yAux, zAux, wAux, i _x , i _y , i _z
Lighting	n _x , n _y , n _z cc _a , cc _r , cc _g , cc _b PSc _c , f _{ad} , f _s , b _{ad} , b _s
Texture/Projection Transformation	xAux, yAux, zAux, wAux, s, t, r, q
Clipping	all
Fog Factor Generation	zAux
Perspective Division	x, y, z, w, s, t, r, q
Viewport Transformation	x, y, z

Figure 8

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Signal 802	No transfer 804	No transfer 806	Command 808	Data 810	Vertex 812
valid	0	x	1	1	1
ready	x	0	1	1	1
cmdBit	x	x	1	0	x
cdSelect ¹	x	x	1	1	0

800

005T30" 0E94660

Figure 9A

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900

005T90"0E946560

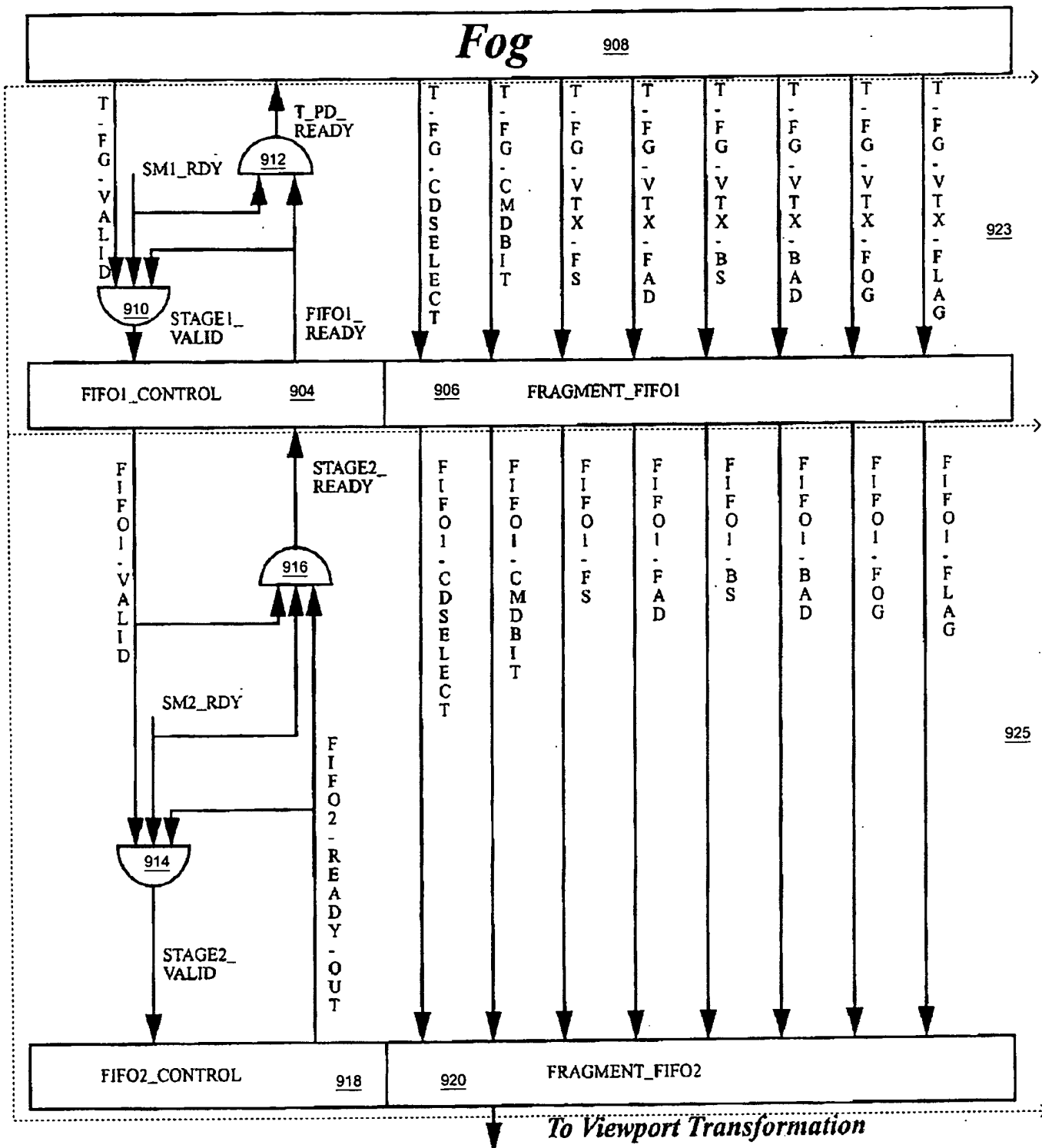
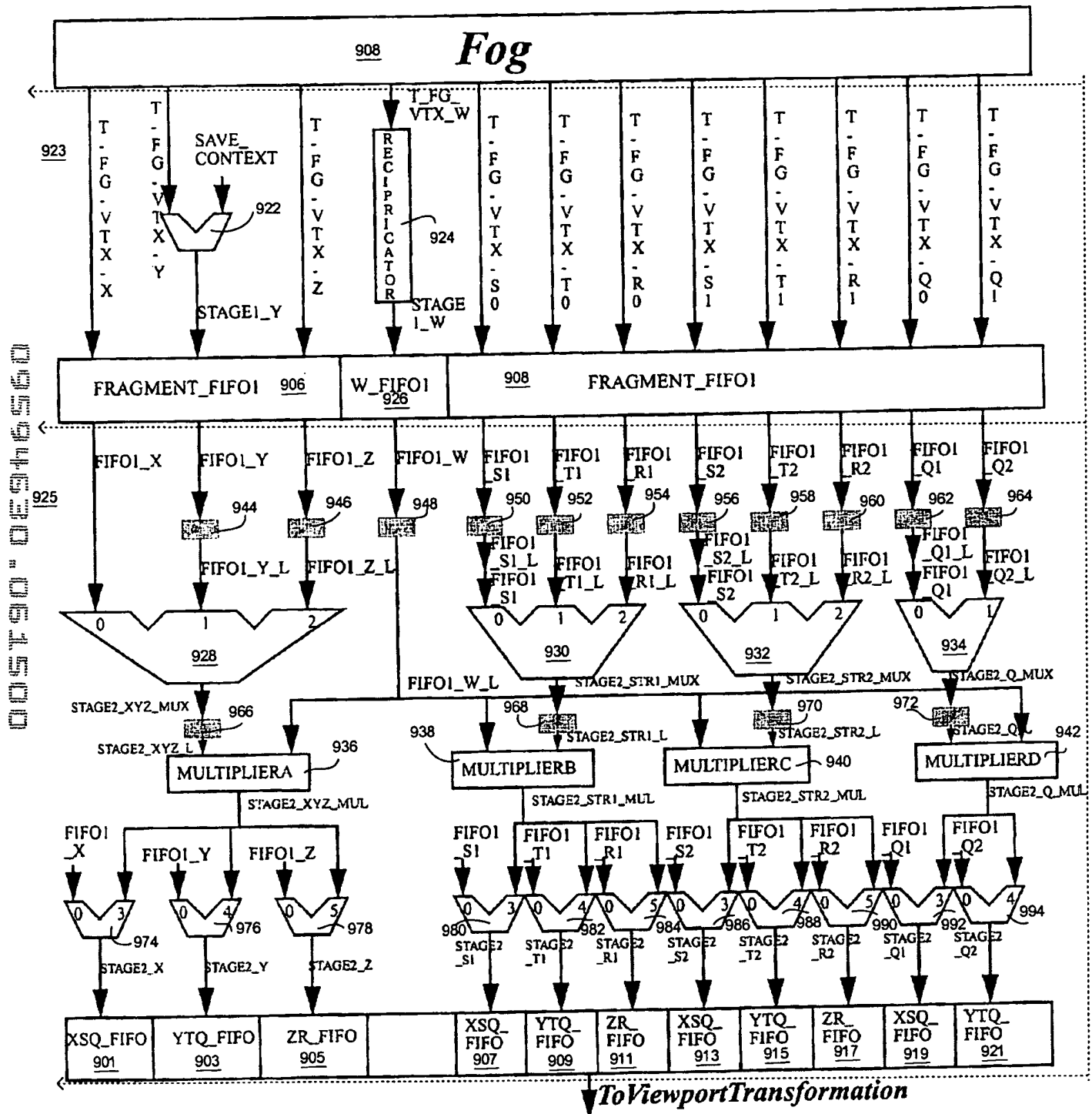


Figure 9B

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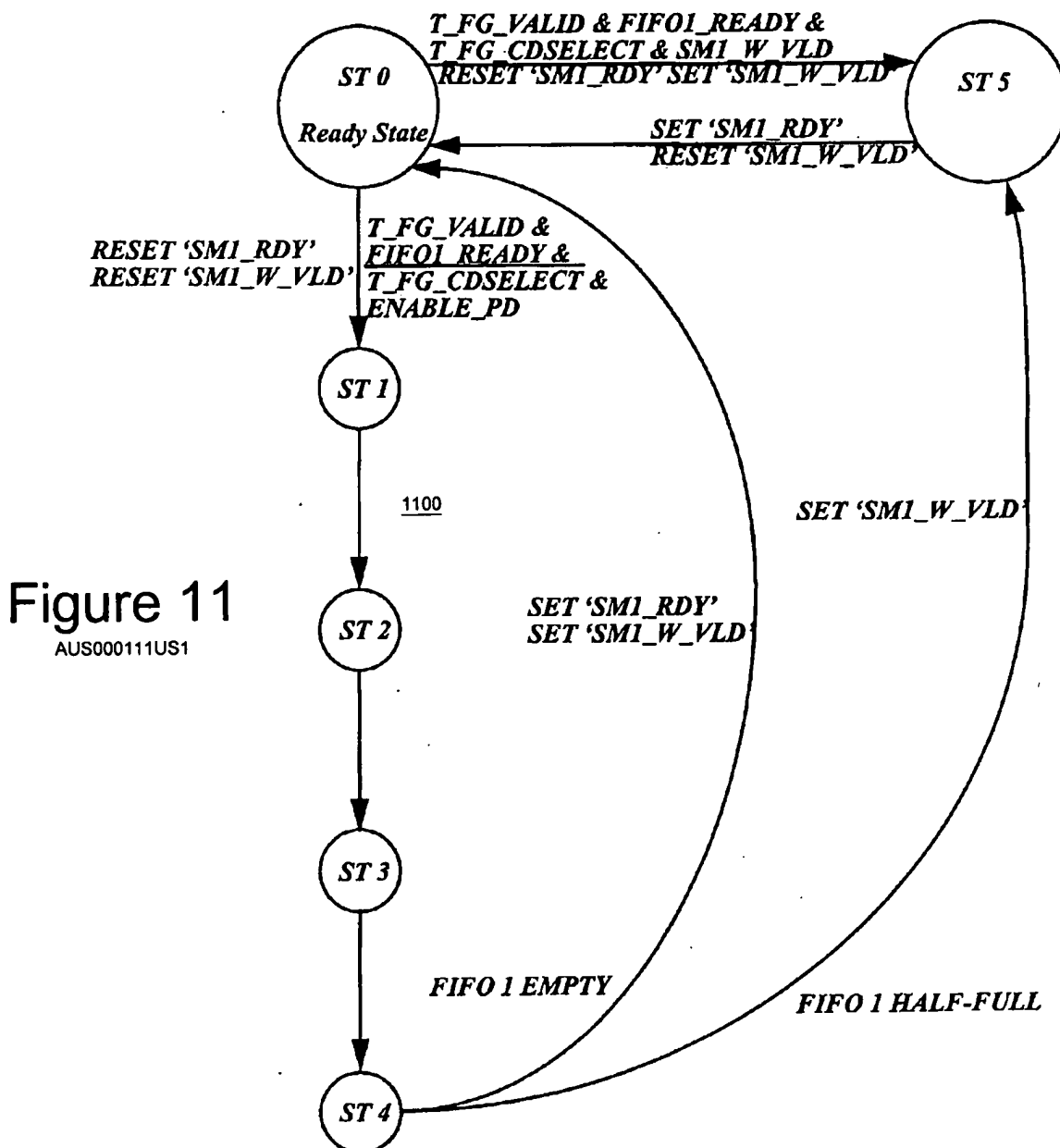
902



Incoming Coordinate	X	Y	Z	W	S0	T0	R0	Q0	S1	T1	R1	Q1
Outgoing Coordinate	X/W	Y/W	Z/W		S0/W	T0/W	R0/W	Q0/W	S1/W	T1/W	R1/W	Q1/

Figure 10

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005130" 0E946560

Figure 12

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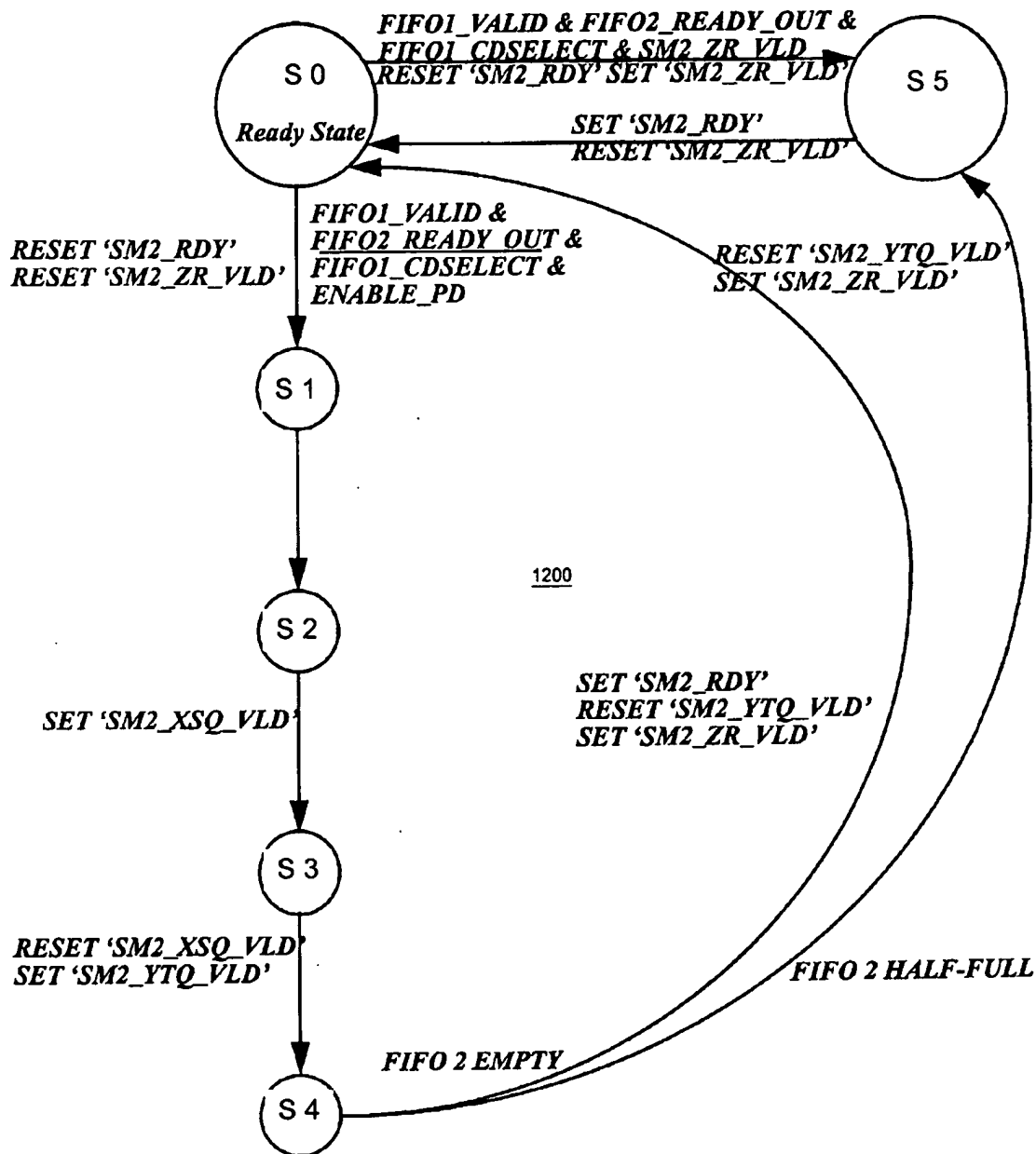


Figure 13

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Clock	0	1	2	3	4	5	6	7	8	9	10	11
I/W	W_1					W_2					W_3	
Fifo I						I/W					I/W	
Mul A								X/W	Y/W	Z/W		
Mul B								S1/W	T1/W	R1/W		
Mul C								S2/W	T2/W	R2/W		
Mul D								Q1/W	Q2/W			
Fifo II												X/W Y/W Z/W S1/W T1/W R1/W Q1/W S2/W T2/W R2/W Q2/W

1302

1300

005190-0E946560